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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,414	02/22/2005	Wolfgang Herzing	HERZING1	5100
1444 7590 10/13/2009 BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303			EXAMINER ABU ALI, SHUANGYI	
			ART UNIT 1793	PAPER NUMBER
			MAIL DATE 10/13/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/525,414	<b>Applicant(s)</b> HERZING, WOLFGANG	
	<b>Examiner</b> SHUANGYI ABU ALI	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07/29/2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-19 is/are pending in the application.
- 4a) Of the above claim(s) 7-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6 and 13-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/29/2009</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/29/2009 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "high" in claim 17 is a relative term which renders the claim indefinite. The term "high" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

### ***Claim Rejections - 35 USC § 103***

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3-4, 13, 15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,795,649 to Cosentino et al. in view of U. S. Patent No. 4,116,710 to Heikel.

Regarding claims 1, 3-4, 13, and 15, Cosentino et al. disclose a metallic pigment made through a method of metallization of a release film. The method is vapor and vacuum deposition. The metal comprises aluminum, copper, silicon or any compound (i.e. alloy) comprising the foregoing metal. The pigment has a thickness of 5 nm to 50 micron (col. 7, line 53 to col. 8, line 3).

Although Cosentino et al. is silent about the specific amount of the aluminum and copper in the alloy, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to select the desired alloy element amount to have the desired the physical and chemical property of the pigment, motivated by the fact that

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Heikel , also drawn to flaky metallic pigment, disclose that it is known to make an alloy containing 50 percent or above of a base metal (i.e. Cu- and thus the balance is the other material in the alloy). See col. 2, lines 23-25.

Regarding claim 17, although combined teaching of Cosentino and Heikel et al. are silent about the metal flake having a mirror-smooth undisturbed and uniform thickness as set forth by applicant in claim 1, the metal flake is made by a substantial similar process as applicant set forth in the instant application, the claimed the surface and thickness would be necessary followed from the teaching of Cosentino and Heikel et al., since similar process produces similar product.

Regarding claim 18, although combined teaching of Cosentino and Heikel et al. are silent about the reflectability and the tintorial power as set forth by applicant in claim 18, the claimed reflectability and the tintorial power would be necessary followed from the teaching of Cosentino and Heikel et al., since reflectability and the tintorial power is determined by the constituents of the composition.

Regarding claim 19, Cosentino et al. disclose that the pigment of their invention can be made into desired size according to the use of the pigment (col. 8, lines 10-14). Heikel et al. disclose that the pigment has a size in the range of 10-100 micron.

Claims 1, 4, 13 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 4,116,710 to Heikel.

Regarding claims 1, 4 and 13, Heikel discloses a metallic pigment made through a method of metallization of a release film. The method is vapor and vacuum deposition.

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The metal comprises aluminum, copper, gold or any compound (i.e. alloy) comprising the foregoing metal. The alloys contain greater than 50 percentage of the base metal.

The pigment has a thickness of up to 100 nm (col. 1, line 60 to col. 2, line 25).

The reference differs from Applicant's recitations of claims by not disclosing identical ranges (copper amount of 90-99%). However, the reference discloses "overlapping" ranges (copper amount larger than 50%), and overlapping ranges have been held to establish prima facie obviousness (MPEP 2144.05).

Regarding claim 17, Although the teaching of Heikel et al. are silent about the metal flake having a mirror-smooth undisturbed and uniform thickness as set forth by applicant in claim 1. The metal flake is made by a substantial similar process as applicant set forth in the instant application, the claimed the surface and thickness would be necessary followed from the teaching of Heikel et al., since similar process produces similar product.

Regarding claim 18, although the teaching of Heikel et al. is silent about the reflectability and the tintorial power as set forth by applicant in claim 18. The claimed reflectability and the tintorial power would be necessary followed from the teaching of Heikel et al., since reflectability and the tintorial power is determined by the constituents of the composition.

Regarding claim 19, Heikel et al. disclose that the pigment has a size in the range of 10-100 micron.

Claims 5 - 6 ,14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 4,116,710 to Heikel and further in view of U. S. Patent No. 4,622,073 to Hashizume.

Regrinding claims 5 – 6, 14 and 16, Heikel discloses a copper alloy flake as applicant set forth in claim 1. But they are silent that the metal flake is coated with titanate as applicants set forth in the above claims.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to treat the metal flake with titanate, motivated by the fact that Hashizume, also drawn to metal flake being used in paint composition, disclose that metal flake coated with titanate can be useful in plastic because of the increased pigment stability (col. 2, lines 35-40).

Claims 5 - 6, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U. S. Patent No. 5795649 to Cosentino et al., and U. S. Patent No. 4,116,710 to Heikel and further in view of U. S. Patent No. 4,622,073 to Hashizume.

Regrinding claims 5 - 6, 14 and 16, Cosentino et al. and Heikel disclose a copper alloy flake as applicant set forth in claim 1. But they are silent that the metal flake is coated with titanate as applicants set forth in the above claims.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to treat the metal flake with titanate, motivated by the fact that Hashizume, also drawn to metal flake being used in paint composition, disclose that

metal flake coated with titanate can be useful in plastic because of the increased pigment stability (col. 2, lines 35-40).

### ***Response to Arguments***

Applicant's arguments filed 07/29/2009 have been fully considered but they are not persuasive.

Applicant argues that the instant application's aluminum amount is in the range of 1-10% and the copper amount is in the range of 90-99%. The Examiner respectfully submits that the Heikel, also drawn to flaky metallic pigment, disclose that it is known to make an alloy containing 50 percent or above, which includes 90-99%, of a base metal (i.e. Cu- and thus the balance is the other material in the alloy). See col. 2, lines 23-25.

Applicant argues that the instant application's metallic flake structure is determined by the process of making it. The Examiner respectfully submits that Heikel and Cosentino et al. disclose the process of making the metallic flake as applicant set forth in the instant claims. The applicant fails to provide any factual evidence to show the difference between the instant application metallic flake and the teaching of Heikel and Cosentino et al's metallic flake. The attorney's argument can not take place of the evidence.

Applicant argues that the metallic flake has unique property based on the copper and zinc. The Examiner respectfully submits that in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., zinc) are not recited in the rejected



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claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that Hashizume disclose the milling of the pigment. The Examiner respectfully submits that the teaching of Hashizume is used to show the metal flake can be treated with titanate to increase pigment stability (col. 2, lines 35-40). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues that the metallic flake can be molten to be used to produce the copper-aluminum pigment. The Examiner respectfully submits that the claims are drawn to a composition, not a process. Second the molten copper used in the process is not in the claim. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., molten copper) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, the applicant failed to provide any factual evidence to show the superiority of the molten copper. The applicant's argument can not take place of the evidence.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHUANGYI ABU ALI whose telephone number is (571)272-6453. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J.A. LORENZO/  
Supervisory Patent Examiner, Art Unit 1793

/Shuangyi Abu-Ali/  
Examiner, Art Unit 1793